all groups of loan agencies and for all parts of the country. The low and relatively uniform rates of the banks comprising the Federal farm loan system are undoubtedly a primary factor in bringing about this desirable change.

D. L. WICKENS. A. N. MOORE.

CREDIT Through United States Warehouse Act

The serious condition in which the cotton grower found himself in 1914 resulted in the passage of the United States warehouse act in August, 1916. It was the opinion of

many who had given serious thought to the cotton situation that if the farmers did not all try to sell their cotton within a few weeks following harvesting, but placed it in a warehouse and released it

as the market could absorb it, that relief would follow.

Few growers of any products are in a position financially to do this. Besides, warehouse receipts covering agricultural products in the hands of the growers had little or no standing for credit purposes. Almost without exception the receipts conveyed no information as to the value of the products. Even the local banker who loaned to the farmer did so, not on the basis of the warehouse receipt, but on the basis of his opinion of the farmer or by virtue of a chattel

mortgage against the products.

The framers of the warehouse act aimed to produce a warehouse receipt which would give specific information as to the quantity, grade, and condition of the product, and to have the warehouse receipt form a definite contract between the warehouseman and the holder of the receipt. Their big concern was to draft legislation so that the farmer might be furnished with a warehouse receipt that would make it possible for him to store some of his products at harvesting time and obtain a warehouse receipt on which he could borrow a fair amount of the value of the product. That meant that the law must be so worded as to put value into the receipts in such form that the banker could readily recognize it and to guard that value so long as the receipt was outstanding.

Ten years have elapsed since the warehouse act was passed. During those 10 years all has not been well with agriculture. In 1920 and 1921 agriculture passed through one of its greatest depressions. Has the warehouse act functioned in the meantime? Has it in any measure accomplished its purpose? Has it commanded the attention of bankers? Have they loaned their money on products represented by Federal warehouse receipts, and after having had experience, are they still willing to loan on such collateral? The acceptability of Federal warehouse receipts to bankers is a real test of the value of the warehouse act. Proof of the value of this law can best be demon-

strated by accomplishment.

Results in 1921 and 1922

The first several years following the passage of the law had to be devoted to investigational work, to drafting of proper regulations and to educational work with warehousemen, storers of agricultural products, and bankers. But when the agricultural depression of

1920 and 1921 came, then the warehouse act began to attract attention. It was first made use of in a big way by the Mississippi Staple Cotton Growers Cooperative Association. When officials of that Association approached the War Finance Corporation for a loan of \$7,000,000 in 1921 and promised warehouse receipts issued under authority of the United States warehouse act as collateral for the loan, their application was almost immediately granted. A few weeks later the application of a tobacco growers' cooperative association for \$30,000,000 was granted by the War Finance Corporation. Here again the Federal warehouse receipt was the collateral. Following these applications others were granted for large amounts.

By this time commercial bankers were becoming acquainted with the Federal warehouse receipt. Individual farmers were beginning to find the receipts of real value among their local bankers, while bankers in metropolitan centers were seeking this type of collateral. Other cotton and tobacco growers' cooperative associations, wool growers' associations, peanut growers' associations, and grain growers' associations were storing their products in warehouses operated under this law, and commercial bankers were loaning many millions annually on this collateral, and that, too, at unheard of rates.

Some of the Federal reserve banks early recognized the value of warehouse receipts issued under authority of the Federal warehouse act. The Atlanta Federal Reserve Bank in 1920 called attention of its member banks to the desirability of this type of collateral. The Federal Reserve Bank of St. Louis shortly after made attempts to impress upon its member banks the need for sounder warehousing practices in the agricultural field and shortly afterward adopted a policy that it would not accept as collateral warehouse receipts for agricultural products which were eligible for storage under the United States warehouse act unless such receipts were issued by a warehouse duly licensed under that act.

Intermediate Credit Provided

In March, 1923, came the Federal intermediate credit act. After thorough study of the Federal warehouse act and regulations thereunder, the Federal Farm Loan Board, which administers the intermediate credit law, ruled:

Intermediate credit banks will accept the receipt of any warehouse licensed and bonded under the United States warehouse act.

Early in 1922 the strictly commercial banks began to be actively interested in loans which would be supported by Federal warehouse receipts. The New Orleans Clearance House Association in June, 1923, expressed the attitude of the bankers of that city in this language:

Resolved, That the New Orleans Clearing House Association, recognizing that Federal Bonded Warehouse Receipts are preferable for collateral purposes, and that the safeguards offered by the Federal Warehouse System, through its selection in admitting warehouses into the system, its supervision and inspection of warehouses, and the bonded responsibility of the warehousemen, are to the interest of financial institutions handling warehouse collateral as well as the patrons of such warehouses, including producers and merchants, hereby expresses itself as favoring the licensing of warehouses under the

United States Warehouse Act, and urges upon warehousemen in the State of Louisiana to operate their warehouses under this statute.

This action was followed by similar or identical action by bankers' associations in other sections.

Bankers Indorse Warehouse Act

In the Pacific Northwest the bankers manifested an interest in Federal warehouse receipts as early as 1920. In the State of Washington the interest was crystallized into action at the annual meeting of the bankers' association in June, 1926, in the following language:

Be it resolved by the bankers of Washington at Walla Walla in their thirty-first annual convention assembled, That we commend all warehousemen in this state who are operating under the United States Warehouse Act and we urge upon warehousemen who are not doing so to qualify under the provisions of the Act. We recommend that in the interest of agriculture in the Northwest and as a means of protection to farmers who store their products with public warehousemen that our members discriminate between applications for loans supported by warehouse receipts issued under the United States Warehouse Act and applications supported by other forms of receipts, and that we each counsel with our farmer and dealer clients with a view of educating them in the advantages of the Federal Warehouse Act.

A large bank in New York City which has loaned many millions on agricultural products at low interest rates and which is ready to loan many millions more, in acknowledging a list of licensed warehousemen which is sent to certain bankers at regular intervals, recently wrote:

In actual practice in this institution, when we find the name of a warehouse on your list we feel it unnecessary to make any further inquiry into its standing, and this fact is of great value to us in our commodity financing operations.

Accurate figures are not available as to the amounts that may be loaned annually on Federal warehouse receipts but a conservative estimate places the total amount well above \$500,000,000. Not only are large sums loaned to growers and their cooperative organizations and others handling agricultural products, but frequently because of the character of collateral the loans are made at very decidedly better interest rates than have been offered when other than Federal warehouse receipts constituted the security. A concrete instance of the effect of Federal warehouse receipts on interest rates is the case of a dried-fruit growers' organization which advised that through this type of collateral it was able to get money for 2 per cent less than it could on its former type of collateral. In addition, the interest of banks in metropolitan centers in these Federal warehouse receipts has had a stabilizing influence on local bankers who were sometimes disposed to charge high rates.

Unlimited Reservoir of Credit

The reservoir of credit that is available to agriculture for orderly marketing through the warehouse act seems unlimited, granting that the applicant is entitled to credit. Scarcely a week passes that those who administer the warehouse act do not receive an inquiry from some large banking institution wanting to learn of parties

who may be seeking loans and who can offer Federal warehouse

receipts.

The Federal warehouse act has already accomplished the purposes of the framers of the law. It has made sound, orderly marketing possible. It has opened new avenues of sound credit to the farmer and others handling agricultural products. It has a record of accomplishment. It is a reality.

H. S. Yоне.

CROP Acreage by Actual Measuring Evidence of the extent of the yearly changes in the acreages of crops is now being obtained by actual measurements. A simple machine devised by the Government crop reporting service,

measures in feet the frontage of fields devoted to each crop along thousands of miles of roads in each important agricultural State.

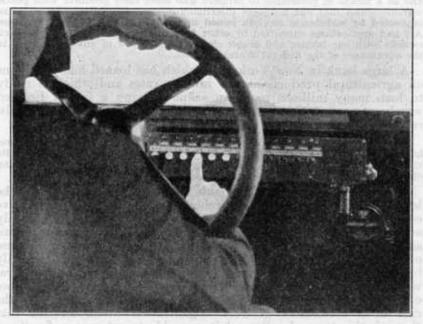


Fig. 64.—The eropmeter is attached to the dash of the automobile and the speedometer. Keys are provided to record principal crops

The new device is installed in an automobile in the same manner as a speedometer and has a dozen or more dials with buttons for throwing them into gear. By pressing the proper button at the corner of each field the frontages of the different crops along the road traversed are separately recorded. Permanent routes selected to give proper samples of each agricultural section are followed year after year. Measurements are made under uniform rules so that all records may be comparable.

The measurements along identical routes in successive years are compared to determine annual changes. If, for example, it were found that the total measured frontage of fields of oats in a particular district on identical routes was 500,000 feet in 1925 and 475,000